NEXT SCHOLARS

An International Women's Undergraduate Science, Technology, Engineering, and Math (STEM) Education and Enrichment Initiative

Participant Handbook 2014-2015

Presented by:

The New York Academy of Sciences
The United States Department of State
A Consortium of 38 U.S. Women's Colleges
Science Alliance

The New York Academy of Sciences

ScienceAlliance

NEXT SCHOLARS

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Introduction

October 2014

Dear Scholars & Fellows,

Hello and welcome to the NeXXt Scholars Program!

We started out in 2012 as a pilot and are very fortunate to be able to continue with our 5-year support of the Fellow-Scholar mentoring relationship. None of this, however, could be done without the efforts of our fantastic mentoring Fellows and our outstanding Scholars – you're the ones who make this Program worthwhile and we salute you!

This handbook will outline practical items such as Program guidelines, roles and responsibilities, Program activities, trainings and more. We hope that this helps with any questions you may have about our history, goals, expectations and other orientation items. The handbook will serve as a reference tool that you can continue to use as you navigate your undergraduate studies and beyond.

In an effort to keep our programming both cutting-edge and as accessible as possible for our participants, we have a few exciting program enhancements that we will be launching this fall! Stay tuned for further information on two growing partnerships that will allow us to create stronger matches between fellows and scholars, and will allow us to streamline our content delivery and program communication for everyone. More information on both of these exciting developments will be available to all program participants soon.

Thank you again for your dedication to the NeXXt Scholars Program. We look forward to working with all of you!

Best,

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What is the NeXXt Scholars Program?

The New York Academy of Sciences (the Academy), in partnership with the U.S. Department of State and a consortium of U.S. women's colleges, launched the NeXXt Scholars Program in the Fall of 2012. The Program is part of an International Women's Undergraduate STEM Education Initiative launched by former Secretary of State Hillary Rodham Clinton in December 2011. The NeXXt Scholars Program aims to engage, connect and advance young women from countries with predominantly Muslim populations and American young women to pursue undergraduate degrees in Science, Technology, Engineering and Mathematics (STEM) fields. In order to accomplish this goal, the Academy provides partnership, mentorship, and networking support for these Scholars by way of a professional female STEM Fellow, 5-year membership to the New York Academy of Sciences, matching of International NeXXt Scholars with college-selected American NeXXt Scholars at the same school, as well as a slew of educational programs, mentoring activities, and professional development training sessions.

By partnering with a consortium of U.S. women's colleges, the NeXXt Scholars Program is preparing the future generation of female global leaders who will be discovering the next great idea and solving the next big challenge. The exes in NeXXt symbolize the X chromosomes of women.

The first cohort of NeXXt Scholars and their Fellows were inaugurated during the 2012-2013 academic year. There were 24 Scholars and 24 Fellows; additional information on this class can be found at http://www.state.gov/r/pa/prs/ps/2012/10/199153.htm. In just one year, the size of the second cohort has more than doubled!

The 47 participating countries/regions outside of the U.S. are listed below.

Table 1: Focus Regions

Afghanistan	**Iraq**	**Palestinian Territories**
Albania	**Jordan**	**(West Bank and Gaza)**
Algeria	**Kosovo**	**Qatar**
Azerbaijan	**Kuwait**	**Saudi Arabia**
Bahrain	**Kyrgyzstan**	**Senegal**
Bangladesh	**Lebanon**	**Sierra Leone**
Brunei	**Libya**	**Somalia**
Burkina Faso	**Malaysia**	**Sudan**
Chad	**Maldives**	**Syria**
Comoros	**Mali**	**Tajikistan**
Djibouti	**Mauritania**	**Tunisia**
Egypt	**Morocco**	**Turkey**
Gambia	**Niger**	**Turkmenistan**
Guinea	**Nigeria**	**United Arab Emirates**
Indonesia	**Oman**	**Uzbekistan**
Iran	**Pakistan**	**Yemen**

The 38 participating colleges are listed below.

Table 2: Websites of Participating U.S. Women's Colleges and Universities

Name of School	Website
Agnes Scott College	www.agnesscott.edu
Barnard College	www.barnard.edu
Bay Path University	www.baypath.edu
Bennett College for Women	www.bennett.edu
Brenau University	www2009.brenau.edu/home.cfm
Bryn Mawr College	www.brynmawr.edu/
Carlow University	www.carlow.edu
Cedar Crest College	www.cedarcrest.edu
Chatham University	www.chatham.edu/
College of Saint Benedict	www.csbsju.edu/
College of Saint Elizabeth	www.cse.edu
College of Saint Mary	www.csm.edu
Columbia College	www.columbiasc.edu
Converse College	www.converse.edu/
Cottey College	www.cottey.edu/
Douglass Residential College at Rutgers University	www.douglass.rutgers.edu/index.shtml
Hollins University	www.hollins.edu/
Mary Baldwin College	www.mbc.edu
Meredith College	www.meredith.edu
Mills College	www.mills.edu
Mount Holyoke College	www.mtholyoke.edu/index.html
Notre Dame of Maryland University	www.ndm.edu
Saint Joseph College	www.sjc.edu
Saint Mary-of-the-Woods College	www.smwc.edu
Saint Mary's College	www3.saintmarys.edu/
Salem College	www.salem.edu
Scripps College	www.scrippscollege.edu/
Simmons College	www.simmons.edu
Smith College	www.smith.edu/
Spelman College	www.spelman.edu
St. Catherine University	www.stkate.edu/
Stephens College	www.stephens.edu
Sweet Briar College	www.sbc.edu
Ursuline College	www.ursuline.edu
Wellesley College	web.wellesley.edu/web
Wesleyan College	www.wesleyancollege.edu
Wilson College	www.wilson.edu
The Women's College of the University of Denver	www.womenscollege.du.edu

Program Model

- The Academy was approached to find opportunities for incoming female first-year undergraduate students to help them acclimate and succeed in their pursuit of a STEM-related degree at women's colleges
- Graduate students, post-doctoral fellows, medical doctors, engineers and other STEM professionals volunteer to mentor the Scholars on a one-to-one basis in person, virtually, or both. At the very least, monthly contact is expected (although each pair determines their own communication schedule and needs)
- Fellows receive training in mentorship and access to professional development, field-specific conferences and other activities and events through their membership with Science Alliance.
- Scholars receive training and experience for soft skills development (e.g. networking, communication, interview and resume/CV skills, etc.) via webinar
- Fellows and Scholars may be in contact with one another at any time – the one-to-one relationship between Fellows and Scholars is the primary method – but there will be opportunities for the larger group to exchange ideas via events and an online platform.
- Scholars and Fellows have semester check-ins with Program administration to make sure that they are progressing
- An online platform was created to enable direct communication between all participants, increasing and sharing of knowledge, opportunities, challenges, best practices, etc. and to building a supportive community without having to be in the same location

Mission

- To retain women in STEM fields
- To assist in the development of the next generation of women leaders in STEM

Goals of the Model

The Program's mission is to assist in the development of the next generation of women leaders in STEM. To that end, the Program's goals are:

1) To help Scholars remain interested in STEM;
2) To help Scholars pursue undergraduate degrees in a STEM-related discipline;
3) To familiarize and assist Scholars to develop soft skills that they may receive during their academic pursuits, including (but not limited to) the following areas: networking, interviewing, CV/resume development, international collaboration;
4) To assist the Scholars to develop their cultural intelligence;
5) To broaden participants' network of professional, academic and social contacts.

FAQs (Frequently Asked Questions)

What fields of study are included in the approved STEM majors?

The NeXXt Scholars Program indicates approved STEM-related majors in accordance with the U.S. Department of Homeland Security STEM-Designated Degree Program guide, which is updated yearly. The list can be viewed at www.ice.gov/sevis/stemlist.htm. Certain countries specify which majors an International NeXXt Scholar should pursue so students are encouraged to confirm desired study areas with appropriate officials. Please contact the country's EducationUSA adviser with questions.

Although students without a committed intent to major in a STEM-related field should seek other opportunities, it is understandable that some students may find another passion while exploring a liberal arts curriculum. After encouraging the scholar to still major in STEM and minor in another field of interest, the student will remain eligible for the Program provided she takes a core set of STEM subjects at the level equivalent to at least a minor.

What financial aid package does the NeXXt Scholars Initiative provide?

Although the NeXXt Scholars Program does not provide any scholarship or directly include a financial aid component, most of the women's colleges offer some need-based and/or merit-based financial assistance to qualified students. Other schools are able to assist with tuition and living expenses. For details, refer to the women's college admissions guide at www.state.gov/e/stas/nexxt. To secure tuition assistance, candidates must apply to the women's colleges by the appropriate financial aid deadlines (which may be different from the application deadlines) and submit the necessary documents. Colleges will inform applicants directly of the financial aid package, if any, at the time of the acceptance decision.

Further, some countries provide scholarship funds for students interested in studying abroad. Details are specific to the nature of the opportunity. For more information, go to EducationUSA's website at http://www.educationusa.info/centers.php.

Further information on U.S. women's colleges and a list of all such institutions is available at http://www.womenscolleges.org/. A map indicating the locations of participating women's colleges can be found at http://batchgeo.com/map/Nexxtscholarswomenscolleges.

For details about the individual colleges, majors, and distinguishing features that are not discussed in the women's college application guide (which can be found at www.state.gov/e/stas/nexxt), reach out to the point-of-contact for each school listed in the summary table.

Program Inspiration

The NeXXt Scholars Initiative was inspired by a young Egyptian woman from a fairly conservative family in Egypt who was accepted into a Master's degree program in biological sciences at Smith College, a Massachusetts women's college. The student's father was planning to come live with her in the U.S. because it was not considered culturally acceptable for a young single woman to travel to and live alone in the United States. Smith College could not support a visa for the student's father and also did not support the idea. Two factors gave her father the courage to break that cultural norm and still allow this student to pursue her degree. The first was his high regard for science and the higher education system in the United States. The second factor was that Smith is a women's college so this was a more culturally acceptable environment for her to live in while earning her degree. These two aspects – science and a women's college environment – provided the tipping point for this young woman to have the opportunity that changed her future. The student's mother proudly attended her graduation and, since then, her family has even allowed this aspiring scientist to return to the U.S. for the pursuit of a doctoral degree at a co-educational institution. This led to the realization that women's colleges may be able to play a unique role in increasing opportunities for young women from around the world to access a high-quality, hands-on education in science, technology, engineering, and mathematics.

Program Launch History

Winter 2011

- Former U.S. Secretary of State Hillary Clinton announces creation of NeXXt Scholars Program at the Academy's Celebration Women in Science Event on December 11, 2011
- State Department recruits and solidifies women's college partners

Spring 2012

- EducationUSA Regional Education Advisory Coordinators (REACs) begin recruitment of International NeXXt Schoalrs
- Academy hires Coordinator to manage Program
- Academy develops Scholars enrichment Program
- Call for Fellow applications to recruit mentors begins at the Academy

Summer 2012

- EducationUSA, women's colleges and self-nominations apply to become International NeXXt Scholars
- Fellow applicants are interviewed and chosen to be mentors
- Department of State coordinators nomination process of American NeXXt Scholars with the women's colleges

Fall 2012

- 1st cohort of Scholars arrive on campus
- Fellows are oriented and trained
- The Academy visits Scholars and holds welcome sessions/orientations to the Program
- Scholar-Fellow communication begins

Winter 2012

- State Department updates college admissions guide for each school
- Academy continues monitoring, reviewing, and managing the relationship of Scholars and mentoring Fellows
- Academy holds a gala, highlighting mentoring and the Program
- State Department contacts EducationUSA and begins recruitment process of international students

Spring 2013

- Scholars and mentors meet in New York, NY, for a series of activities including meet-and-greet and networking training at Barnard College, presentation on careers in science at Rockefeller University, and a reception with ambassadors and high-ranking country officials at the United States Mission to the United Nations

2012-2013: Pilot Cohort

- 12 International Scholars
- 12 American Scholars
- 24 Fellows

2013-2014: 2nd Cohort

- 27 International Scholars
- 27 American Scholars
- 54 Fellows

2014-2015: 3rd Cohort

- ? International Scholars
- ? American Scholars
- ? Fellows

Total

- ? International Scholars
- ? American Scholars
- ? Fellows

NeXXt Scholars Program Partners Roles & Responsibilities

1) **The Academy**:
   - Serves as the administrative and programmatic manager of the NeXXt Scholars Program.
   - Acts as the day-to-day contact for Fellows, Scholars, and women's colleges.
   - Sets up and implements the Program's activities.
   - Provides orientation and trainings to Scholars and Fellows.
   - Creates and distributes marketing materials and campaigns for Fellow recruitment, Program, and general marketing via social media.
   - Matches Scholars with Fellows and monitors the relationship throughout the year.

2) **The U.S. State Department**:
   - Acts as liaison for EducationUSA centers to assist with informing international students of Program and expanding reach.
   - Recruits international students by communicating with EducationUSA and U.S. Posts (embassies, consulates, and missions) abroad.
   - Communicates with U.S. women's colleges to manage international applications and appoint American Scholars.
   - Manages institutional relationships with Bureau of Educational and Cultural Affairs, U.S. Mission to the United Nations, U.S. Posts overseas, and similar entities.
   - Updates materials such as the program guide, college admissions guide, and one-pager.
   - Explores scholarship opportunities for international students by communicating with U.S. Posts abroad.
   - Organize annual event for NeXXt Scholars to gather in New York or provide a similar international angle on programming in Washington, D.C. or another location.

3) Consortium of 38 U.S. women's colleges (which tend to graduate women in STEM at a much higher rate than co-educational colleges and serve as great places to build a network among female undergraduate students):
   - Serve as educational institutions and the academic centers for the Scholars by assisting with the cultivation of technical and academic skills.
   - Appointing of American NeXXt Scholars
   - Host welcome orientations for the Program
   - Provide updates to Program materials
   - Promote the Program to the media

4) **Science Alliance** (an initiative of the Academy and a consortium of universities, teaching hospitals, independent research facilities, and organizations in order to help young scientists attain successful and rewarding careers):
    - Disseminate information to recruit Fellows
    - Provide complimentary Science Alliance memberships for Fellows and Scholars
    - Offer access to workshops and webinars for Fellows and Scholars at discounted or complimentary rates – for more event information please visit http://www.nyas.org/WhatWeDo/ScienceAlliance.aspx

Participant Roles & Responsibilities

Fellow Responsibilities

1) Participate in all orientation, training and refresher sessions provided by the Academy
2) Initiate and maintain regular contact with assigned Scholar
3) Help Scholar to complete any Program benchmarks (as determined each year by Program administration)
4) Attend, as available, in-person and virtual activities provided by the Program (e.g. discussion forums, field trips, etc.)
5) Submit check-ins, updates and feedback as requested
6) Contribute to online platform forum
7) Report any issues as needed to the Program and/or its partners
8) Promote the Program internally and externally as needed

Scholar Responsibilities

1) Participate in all welcomes, orientations and check-ins as needed
2) Maintain regular contact with assigned Mentor
3) Attend, as available, in-person and virtual activities provided by the Program (e.g. discussion forums, field trips, etc.)
4) Contribute to online platform forum
5) Complete Program benchmarks (as determined each year by Program administration)
6) Remain in a STEM-related field of undergraduate study
7) Maintain good academic standing
8) Report any issues as needed to the Program and/or its partners
9) Share Program success with other interested students in local and home communities

Matching Process

The NeXXt Scholars matching process is facilitated by the Academy. The call for applications goes out in late spring or early summer; interviews are held during late summer and early fall so the Program can verify the number of Scholars who will be participating and the proper number of Fellows can be recruited. Fellows must be female graduate students, post-doctoral fellows, medical doctors, dentists, engineers, or other professionals specializing in a STEM-related field to be eligible to apply. During the pilot year of the Program, the Fellows were from many fields including biochemistry, physics, neuroscience, chemical engineering, astronomy, biostatistics and more.

Matching Priorities

- Geographic proximity
- Fellow & Scholar fields of interest
- Fellow & Scholar preferences & similarities

Being that Scholars and Fellows come from diverse backgrounds, matching is based on the following:

1) geographic proximity;
2) Fellow & Scholar fields of interest;
3) Fellow & Scholar preferences and similarities.

We are introducing a new matching process through an organization called Everwise that specializes in creating successful mentor-mentee matches through their own technique.

Research has reported that the best mentoring outcomes occur for pairs matched by shared interests, cognitive style, attitude, and value likenesses. Mentees indicate more liking, satisfaction, and contact with mentors who are perceived to be similar and who have like issues. Other important factors vis-à-vis mentoring outcomes are contact frequency, interaction enjoyment, and shared mentoring relationship expectations. Everwise takes all of these into consideration by asking participants to fill out a comprehensive personal survey that helps to outline both the Fellows' and Scholars' perceived preferences/identities while also looking at external factors such as professional linkages and geographic proximity.

IMPORTANT: Scholars and Fellows are able to request changes in their matches when necessary. For example, if a Scholar decides to switch her academic major from biology to physics, she may think it is important to also change her mentor to a Fellow who has expertise in the latter area. Each case will be handled by Program administration along with annual matching reviews.

Training & Orientation

Fellows

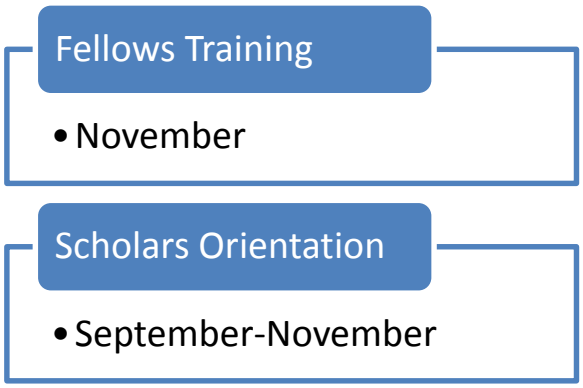
Fellows have mentorship training at the beginning of their inaugural year and then refreshers every year after. Training covers the following areas:

- Program Goals & Expectations
- Communication Guidelines & Strategies
- Cultural Intelligence
- Psycho-socio-academic Supports
- Career Planning
- Yearly Activities Outline
- Handling Crisis Situations
- Ethical Issues
- Reporting Mechanisms

Fellows' training is usually 2-4 hours in small groups, held both virtually and in-person. Training and refreshers are held in early fall (before first contact with the Scholar).

Scholars

Scholars have Program orientation at the beginning of their inaugural year – usually in October or November – and then a welcome back event every year thereafter. Orientation covers the following areas:



- Program Goals & Expectations
- Communication Strategies
- Handbook Rules & Overview
- Icebreaker Activities
- Regional Meet-and-Greets
- Academic & Career Planning
- Yearly Activities Outline

Scholars' orientation is usually 2-4 hours in small in-person groups at an in-person meeting with the New York Academy of Sciences staff. If there are other schools within the area, the Program makes every effort to get Scholars together at a regional hub meet-and-greet or similar activity. Furthermore, if there are Fellows or women's college administrators and/or faculty who wish to attend, orientation and welcome back sessions are open to these individuals as well.

Program Activities

The Program provides a range of activities for participants. As we continue to learn and grow, activities may change from year to year. For the 2014-2015 academic year, the following activities have been proposed:

Soft Skills Development Areas

- Communication
- Cultural intelligence
- Networking
- Job/internship applications
- Interview skills
- Collaboration

- Virtual check-ins with Program administration (1/semester)
- Distance and/or in-person mentoring sessions
- Individual Development Plan (IDP) goal-setting activity
- Skills development webinars and/or Q&As with successful female scientists/experts (1-2/semester), which could focus on:
    - Developing effective LinkedIn profiles/online presence
    - Communication & networking
    - Cultural intelligence
    - Refining your CV/resume
    - Mock job and/or internship interviews
- In-person day-long workshop (pending funding – previously held in spring)

Many of these activities will be facilitated by a new partner organization, Schoology. We are working with Schoology to create an all-inclusive online platform that will host all NeXXt discussions, lessons, activities, and announcements. Once you are confirmed as a participant in the NeXXt Scholars Program, you will receive further information on how to enroll in Schoology to be able to take advantage of all of our Program offerings.

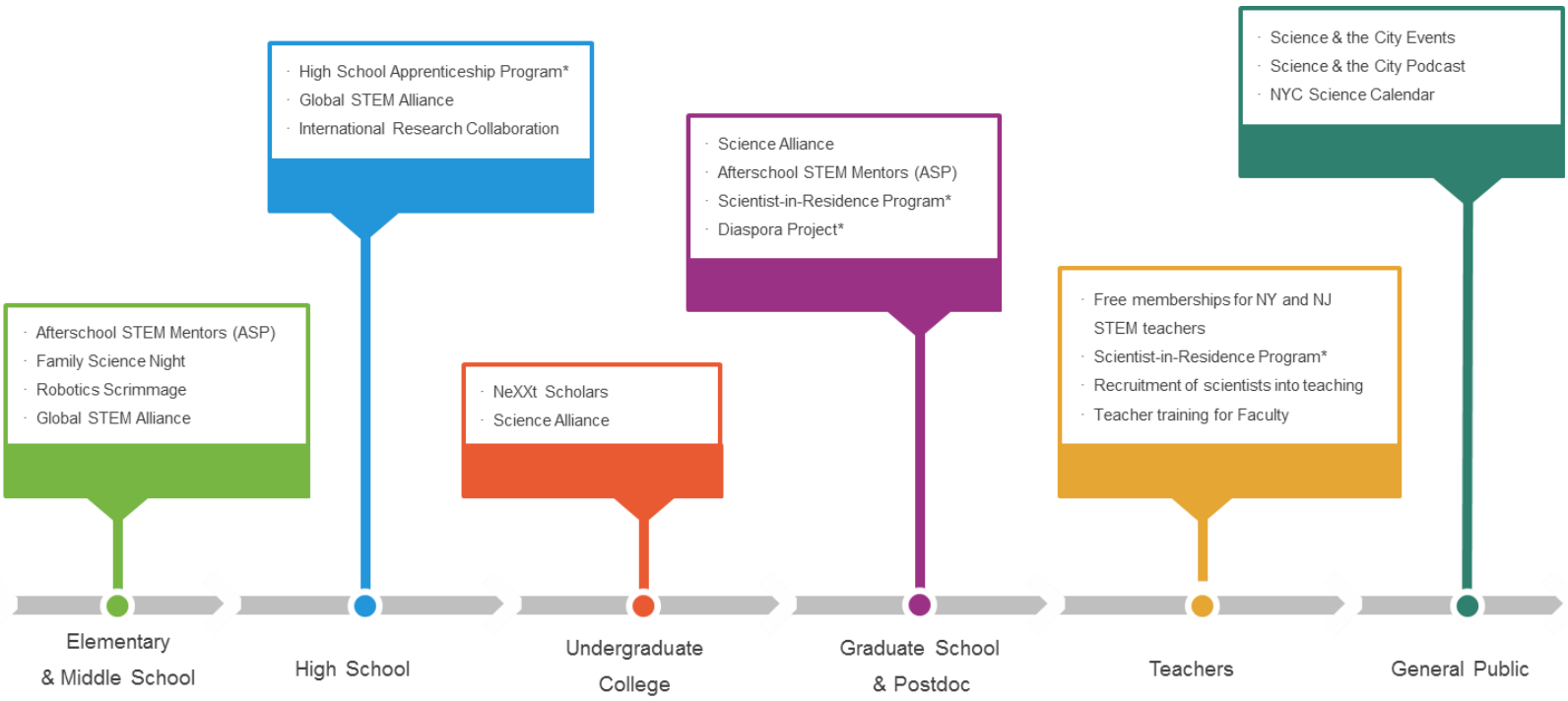
Please also note that these activities are subject to change as we adjust to the needs of each cohort of Scholars. Scholars and Fellows will be polled about the desire for skills development webinars and other trainings.

Overview: The New York Academy of Sciences

The New York Academy of Sciences is the world's nexus of scientific innovation in the service of humanity. For nearly 200 years – since 1817 – the Academy has brought together extraordinary people working at the frontiers of discovery and promoted vital links between science and society. One of the oldest scientific organizations in the United States, the Academy has become not only a notable and enduring cultural institution in New York City, but also one of the most significant organizations in the international scientific community.

The Academy has a three-pronged mission:

- to advance scientific research and knowledge
- to support scientific literacy
- to promote the resolution of society's global challenges through science-based solutions



Science Education at the Academy

Launched in 2010, the New York City Science Education Initiative has a simple mission: to identify high-impact, scalable pathways for scientists to directly improve the number of children who are STEM-literate. Our theory of change relies heavily on the core competencies of the Academy: to serve as a connector between the relatively well-resourced scientific community to the relatively under-resourced education community so as to serve high-need students and under-resourced teachers in the STEM fields.

Current Science Education projects besides NeXXt Scholars:

- ***Afterschool STEM Mentoring Program (New York City)***
  http://www.nyas.org/WhatWeDo/ScienceEd/STEMmentoring.aspx

  The Academy, in collaboration with the New York City Department of Youth and Community Development (DYCD), developed the Afterschool STEM Mentoring Program, matching afterschool programs in New York with graduate student members of the Academy's Science Alliance. Academy staff members work with curriculum partners to develop lessons to train graduate students and place these students in afterschool programs as instructors and mentors, with the aim of both solidifying foundational science education and fostering better communication of science by young researchers. According to the Office of Juvenile Justice and Delinquency Prevention, an association exists between participation in high quality afterschool programs and higher scores on standardized tests. However, DYCD's afterschool programs currently suffer a documented scarcity of quality science educators and curricula.

  As a step in addressing this shortage and the lagging science achievement by New York students, the Afterschool STEM Mentoring Program has the distinct ability to inspire high-need K-12 students with an infusion of energy, enthusiasm, and expertise. Mentors have the invaluable opportunity to work outside university walls and impart their knowledge to the students who need it most. The afterschool students, who predominantly come from underserved communities, not only receive exposure to new and engaging curricula, but they also learn from young scientists, who, while working to inspire a new generation of scientific innovators, also serve as positive role-models and mentors.

- ***Afterschool STEM Mentoring Program (New York State)***
  http://www.nyas.org/AboutUs/MediaRelations/Detail.aspx?cid=c3d1f9a3-91a6-4f81-9beb-bce9f526a429

  The State University of New York (SUNY) and the Academy were recently awarded a $2.95 million grant from the National Science Foundation (NSF) to scale up a successful afterschool program in which SUNY graduate students and postdoctoral fellows mentor middle school students in STEM subjects. The program targets students in high-need school districts.

  The project creates a foundation and model from which additional pilot sites can be fostered nationally. It will be carried out in three stages:

1) Together, SUNY and the Academy will implement a comprehensive, systemic science education initiative to recruit scientists-in-training (graduate students and postdoctoral fellows) studying in the STEM disciplines at pre-identified colleges and universities to serve as mentors in high-need middle school programs.
2) The scientists-in-training will participate in a new credit-bearing online course, designed with STEM content-specific subject matter and worth three graduate-level academic credits. Faculty from SUNY Empire State College will partner with the Academy and each participating campus to prepare the mentors using the new course.
3) SUNY campuses will partner with community-based organizations to place mentors in afterschool programs, serving middle school students in high-need, low-resource urban and rural communities.

- ***Nobelist Mindset Program (Malaysia)***
  http://www.nyas.org/AboutUs/MediaRelations/Detail.aspx?cid=7a6dd342-d9fd-4727-ad9e-b60ff8d8ddf6
  The Nobelist Mindset Program (NMP) kicked-off with a week-long course in January 2013 when high-level educators and researchers affiliated with the Academy instructed gifted high school students, science teachers and outstanding young scientists at PERMATApintar™, Universiti Kebangsaan Malaysia, and other Malaysian Ministry of Education schools on what it takes to become a prize-winning scientist.

  NMP activities include skill-building in areas identified by Laureates as essential to success, including working across disciplines, learning to communicate one's work to diverse audiences, having passion for research and setting an ambitious research agenda that will improve the human condition. The program design provides separate workshops for each group (students, teachers and scientists) and when appropriate, brings the groups together so that they can learn from one another, working in multi-age teams to solve a complex scientific problem.

- ***Science Alliance***
  http://www.nyas.org/WhatWeDo/ScienceAlliance.aspx
  Science Alliance was launched in 2003 by the New York Academy of Sciences and a consortium of universities, teaching hospitals, independent research facilities, and organizations in order to help young scientists attain successful and rewarding careers.

  Brought about by a need to align scientific training with workforce needs, our mission is to foster lifelong career and professional skills through education, development, and training. We provide unparalleled opportunities to learn and network across institutions, disciplines, and industries through seminars, workshops, and courses held throughout the year at the Academy and our partner institutions in the following key areas: 1) career leadership, 2) field-specific training and 3) innovative thinking and communications.

Overview: The United States Department of State

Department of State Mission Statement

Advance freedom for the benefit of the American people and the international community by helping to build and sustain a more democratic, secure, and prosperous world composed of well-governed states that respond to the needs of their people, reduce widespread poverty, and act responsibly within the international system.

- From the FY 2012 Agency Financial Report, released November 2012

The Office of the Science and Technology Adviser to the Secretary

The Office of the Science and Technology Adviser to the Secretary (STAS) provides scientific and technical advice and resources to bureaus and offices at the U.S. Department of State, building upon the Secretary of State's emphasis on utilizing "smart power," "economic statecraft," and "whole-of-society" approaches.

Reporting to the Under Secretary for Economic Growth, Energy, and the Environment (E), E/STAS promotes science, technology, and engineering as integral components of U.S. diplomacy. The establishment of the E/STAS office in 2000 followed a **National Research Council study** that highlighted the attrition of scientists from the Department of State at a time when the importance of science and technology was increasing in many aspects of foreign policy. More recently, the **2010 Quadrennial Diplomacy and Development Review** confirmed that in a world of increasingly fast-paced change, "science and technology must be enlisted in an unprecedented fashion."

Highlighted Initiatives at E/STAS besides NeXXt Scholars:

E/STAS manages a variety of fellowship programs that bring PhD-level scientists and engineers to work at the Department of State for 1-2 years. The aim is to foster scientifically informed, evidence-based policy and practice by engaging scientists and engineers from a broad range of disciplines, backgrounds, and career stages to directly contribute their knowledge and analytical skills to the federal government. The 2010 QDDR recognized the need to marshal technical expertise to solve 21st century problems through expanded fellowships such as these **Science Fellow programs**.

- ***Science and Public Diplomacy***

E/STAS works closely with the Bureau of Oceans and International Environmental and Scientific Affairs (OES) and the Public Diplomacy bureaus to engage with the public abroad on issues of science and engineering. Science &Technology Fellows have been recruited to add speaking engagements to their international travel, and E/STAS and its partners are working to offer speaking opportunities to more of the U.S. scientific and engineering communities.

- ***Networks of Diasporas in Engineering and Science (NODES)***
  Networks of Diasporas in Engineering and Science (NODES) is a partnership that seeks to support science and engineering diaspora networks by sharing best practices and knowledge, convening diaspora groups and catalyzing growth by linking these networks with useful institutions and tools. As a result, these knowledge networks can have greater impact in their country of origin and in the United States.

- ***Emerging and Transformational Technologies***
  E/STAS works with a wide range of U.S. and international partners to scan the horizon for emerging and transformational technologies that are likely to have significant effects on political and economic landscapes. E/STAS and its partners analyze and advise how this foresight can inform present-day decision-making.

- ***LAUNCH***
  The State Department, NASA, the U.S. Agency for International Development (USAID), and NIKE joined together to form LAUNCH in an effort to identify, showcase and support innovative approaches to global sustainability challenges. LAUNCH searches for visionaries whose world-class ideas, technologies or programs show great promise for making tangible impacts on society in the developed and developing worlds.

- ***Defense Venture Catalyst Initiative (DeVenCI)***
  E/STAS is collaborating with the Defense Venture Catalyst Initiative (DeVenCI) at the Department of Defense (DoD) Rapid Reaction Technology Office to set up the first DeVenCI workshop series at the U.S. Department of State. The DeVenCI process involves interactive participation between the Venture Capital community, small innovative companies, and potential Department of State customers with the goal of accelerating identification and adoption of emerging commercial technologies to meet a wide variety of specific Department of State needs.

- ***Pakistan-U.S. Science and Technology Cooperation Program***
  E/STAS works with partners in the Government of Pakistan and other bureaus at State and USAID to support the Pakistan-U.S. Science and Technology Cooperation Program. The program awards competitive grants to supports joint projects in the fields of science, engineering, and health, thus strengthening cooperation between the U.S. and Pakistan, as well as supporting Pakistani development goals. More than 6,300 Pakistanis have received research and technical training in a wide range of development-related research and practical fields in projects supported by the program.

- ***Global Dialogues on Emerging Science and Technology (GDEST)***
  Under the auspices of the E/STAS Global Dialogues on Emerging Science and Technology (GDEST) program, the State Department continues to support collaboration in the geospatial sciences between the United States and Sub-Saharan African countries in the public, private, NGO, and academic sectors. As led by E/STAS and the Office of the Geographer and Global Issues (GGI), the purpose of the initial **GDEST** site visits and conference was to explore opportunities for establishing and deepening linkages and cooperation on geospatial sciences for sustainable development. Since then, GGI has led pilot projects to build baseline datasets on land use in Burkina Faso, Namibia, and Uganda in collaboration with U.S. and African partners. GGI continues to take the lead on projects to build geospatial baseline data and data distribution platforms in the Lake Victoria region.

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